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1626.5 MHz and 2483.5-2500 MHz bands for primary communications links. The 1610-1626.5 MHz and 2483.5-2500 MHz bands were allocated to the MSS on a co-primary basis (in the Earth-to-space and space-to-Earth directions, respectively), at the 1992 World Administrative Radio Conference ("WARC-92"). TRW welcomes this opportunity to continue its participation in the development and advocacy of the proposals of the United States Government.

As the Commission notes in its NOI, the ITU, in conjunction with its determination that biannual WRCs be held beginning with WRC-93, proposed that the objective of WRC-93 be to recommend issues for the WRCs to be held in 1995 and 1997. The Commission specifically directed, inter alia, that the following issue be included on the agenda for WRC-95: "facilitating use of frequency bands allocated to the mobile-satellite service." NOI, slip op. at 2-3 & n.5.

TRW, while mindful of the Commission's admonition that only "little time" has passed since the conclusion of the 1992 World Administrative Radio Conference (see NOI, slip op. at 5), nevertheless believes that it is imperative that the United States recommend that additional spectrum be made available for use by nongeostationary MSS systems. Furthermore, TRW urges the Government to seek the international adoption of particular interpretations of certain of the regulatory conditions that were imposed on the MSS allocations in the 1610-1626.5 MHz and 2483.5-2500 MHz bands, and to seek any appropriate modifications of the

pertinent regulations. Finally, TRW urges the Commission to embrace an interpretation of ITU Radio Regulation 2613 that will protect a nongeostationary MSS satellite system that operates in fixed-satellite service bands from a future geostationary satellite system in the fixed-satellite service that seeks to invoke the provisions of RR 2613 by demanding that the non-geostationary system cease or reduce transmissions. It is essential that these issues, along with the issues left to be addressed in Resolutions 46 and 70, be resolved at WRC-95, in order to ensure that the initial nongeostationary MSS systems may be established in the new allocations later this decade as contemplated.

II. DISCUSSION

A. The Commission Should Recommend The International Allocation Of Additional Spectrum For Non-geostationary MSS Systems.

If one thing was clearly revealed during the course of the negotiated rulemaking sessions that were held earlier this year as part of the Commission's rulemaking proceeding in CC Docket No. 92-166, it is the fact that there is not enough MSS spectrum available at 1610-1626.5 MHz and 2483.5-2500 MHz to accommodate even the six pending U.S. proposals for use of some or all of those frequencies, putting aside for the moment the prospect of future entry and the development of international MSS systems that would use those bands. In its report to the

Commission, the MSS Above 1 GHz Negotiated Rulemaking Committee stated that it "was not able to reach full agreement on

however, it is incumbent upon the Government to take the opportunity of WRC-93, and every other direct or indirect opportunity that is presented, to seek the international allocation of suitable additional spectrum for use by non-geostationary MSS systems. Accordingly, TRW urges the Commission to seek the inclusion of additional spectrum allocation actions on the agenda for WRC-95, and to recommend the prompt initiation of studies to ascertain the frequency bands that are most appropriate for expansion of the non-geostationary MSS that will occupy the 1610-1626.5 MHz and 2483.5-2500 MHz bands.

B. The Commission Should Seek Clarifications Of Certain WARC-92 Regulations In Order To Facilitate The Successful Introduction Of Non-Geostationary MSS Services In The 1610-1626.5 MHz And 2483.5-2500 MHz Bands.

When the 1610-1626.5 MHz and 2483.5-2500 MHz bands were allocated to the MSS at WARC-92, certain conditions were imposed

upon the Commission to recommend that the United States Government seek to have the most noxious provisions modified or clarified so that they will be applied -- internationally as well as domestically -- in a manner not unfavorable to MSS operation.

The regulation that is in the most need of clarification is Footnote 731E. That regulation provides, in pertinent part, that for the 1610-1626.5 MHz band:

> A mobile earth station operating in [the MSS or the radiodetermination-satellite service] in this band shall not produce an e.i.r.p. density in excess of -15 dB(W/4 kHz) in the part of the band used by systems operating in accordance with the provisions of No. **732**, unless otherwise agreed by the affected administrations. In the part of the band where such systems are not operating, a value of -3 dB(W/4 kHz) is applicable. Stations of the mobile-satellite service shall not cause harmful interference to, or claim protection from, stations in the aeronautical radionavigation service, stations operating in accordance with the provisions of No. **732** and stations in the fixed service operating in accordance with the provisions of No. **730**.

Final Acts of WARC-92, RR 731E.

It seems that some parties, including the applicants for MSS systems in the 1610-1626.5 MHz band, would interpret this regulation as permitting MSS operations in this band, without regard to the final sentence of the quoted passage, where mobile

above and apply the obligation stated in the final sentence regardless of the e.i.r.p. densities produced. The inability of the MSS Above 1 GHz Negotiated Rulemaking Committee to agree on the manner in which RR 731E is to be interpreted is noted in the Committee's Final Report. See Report of the MSS Above 1 GHz

Government recommend a precise interpretation of Radio Regulation No. 2613. RR 2613 provides, in pertinent part, that:

> Non-geostationary space stations shall cease or reduce to a negligible level their emissions, and their associated earth stations shall not transmit to them, whenever there is insufficient angular separation between nongeostationary satellites and geostationary satellites resulting in unacceptable interference to geostationary satellite space systems in the fixed-satellite service operating in accordance with these Regulations.

Final Acts of WARC-92, RR 2613 (footnote omitted).

The MSS Above 1 GHz Negotiated Rulemaking Committee recognized that RR 2613 cannot be applied domestically (as the systems of at least two administrations must be involved), and that it can only be applied as between non-geostationary space stations (and associated earth stations) and geostationary fixed-satellite service systems that are operating in accordance with the ITU's Regulations. As a result of its comprehensive review of the regulation and its purposes, the Committee concluded that there are three conditions that must be met before a non-geostationary system would be required to cease or reduce transmissions pursuant to RR 2613 in order to protect a geostationary fixed-satellite system:

> (1) the administrations of the systems involve[d] must engage in bi-lateral or multi-lateral discussions and reach agreement as to a level of "accepted interference" (see RR 162); (2) after the systems are in operation, the non-geostationary system must exceed the level of

> interference agreed to; and (3) the interference in excess of the agreed level must be caused by the failure of the non-geostationary system to maintain sufficient angular separation between the satellites of the two systems.

Report of the MSS Above 1 GHz Negotiated Rulemaking Committee at 29. The Committee went on to assert that "[i]f any of these three conditions is not met, RR 2613 cannot be invoked to affect the operations of any non-geostationary satellites." Id. Additional background on the Committee's interpretation can be

III. CONCLUSION

At WRC-93, the Commission and the United States Government have their first opportunity to begin capitalizing on the success of their WARC-92 MSS initiatives for the 1610-1626.5 MHz and 2483.5-2500 MHz bands. TRW, as outlined above, urges